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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ATLANTA, GA 30309-3915

EXAMINER

CRAWFORD, GENE O

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/815,498

Applicant(s)

BJORKLUND, KARL-GUSTAV

Examiner

Gene O. Crawford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-15 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/1/04 & 11/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 6 recites the limitation "the inner diameter of the return tube" and "the inner diameter of the delivery tube" in lines 1-3. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 7 and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Deal et al.

The conveyor system and method thereof disclosed by Deal et al. includes all the claimed features and in particular includes: **(claims 1, 14, 15)** a delivery tube 30 having an intake end and discharge end; an endless conveyor 40; a drive assembly 12; a

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plurality of mechanical conveyor means 50; the conveyor system including a return tube 60 extending along the delivery tube 30; means 33 for guiding the endless belt into the return tube 60, the return tube supporting transversal end portions of the belt 40 from below while the belt follows the upper portion of the tube 60; **(claim 7)** the return tube 60 arranged below the delivery tube; **(claims 10, 11)** the conveyor means 50 arranged on the top surface of the endless belt in transversal rows spaced in the longitudinal direction of the belt; **(claim 12)** the discharge end being at a higher level than the intake end (figure 1); and **(claim 13)** the delivery tube having a curved longitudinal portion 34, 36.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deal et al. in view of JP 9169418 and Kamisaka.

With regard to claims 2 and 6, Deal et al. includes all the claimed features but does not disclose the return tube has a substantially circular cross section and an inner perimeter exceeding the width of the endless belt but less than twice its width and being of size smaller than the delivery tube. However, JP 9169418 discloses the broad teaching of providing a conveyor system having a delivery tube with a return tube for

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housing a conveyor belt with the bottom surface following the upper portion thereof wherein the return tube has a circular cross section, the return tube being smaller than the delivery tube. Kamisaka discloses the broad teaching of providing a conveyor system having a return section where the edges of the conveyor belt do not overlap as in JP 9169418. It would have been obvious to one of ordinary skill in the art to provide the conveyor system include a circular return tube having an inner perimeter exceeding the width of the endless belt but less than twice the width such requiring the mere choice of an art recognized configuration as taught by JP 9169418 and Kamisaka.

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deal et al. in view of Nakaegawa et al.

With regard to claims 8 and 9, Deal et al. includes all the claimed features but does not disclose a means for blowing air into the return tube and/or the delivery tube at locations covered by the belt. However, Nakaegawa et al. discloses the broad teaching of providing a conveyor system having a return tube and delivery tube with an air blowing means for blowing air into the return tube and delivery tube. It would have been obvious to one of ordinary skill in the art to provide the conveyor system include an air blowing means blowing air into the return and delivery tubes to facilitate a reduction in friction as the belt is moved through the tube as taught by Nakaegawa et al.

Allowable Subject Matter

9. Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: a conveyor system having circular delivery and return tubes wherein a conveyor belt bottom travels across the upper portion of the return tube and including the unique features of 'the return tube having an inner perimeter being less than 180, 140 or 120 percent of the width of the endless belt' in combination with the rest of the claim language is not taught or fairly suggested by the prior art.

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are cited to show the art with respect to conveyor systems having delivery and return mechanisms housing a conveyor belt: Hashimoto, Welkel, and Osheff et al.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene O. Crawford whose telephone number is 571/272-6911. The examiner can normally be reached on Monday thru Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571/272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gene O. Crawford
Primary Examiner
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